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GB 2037390A

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GB 1468435

GB 1415174

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GB 1250110

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GB 556145

GB 535346

(58) Field of search
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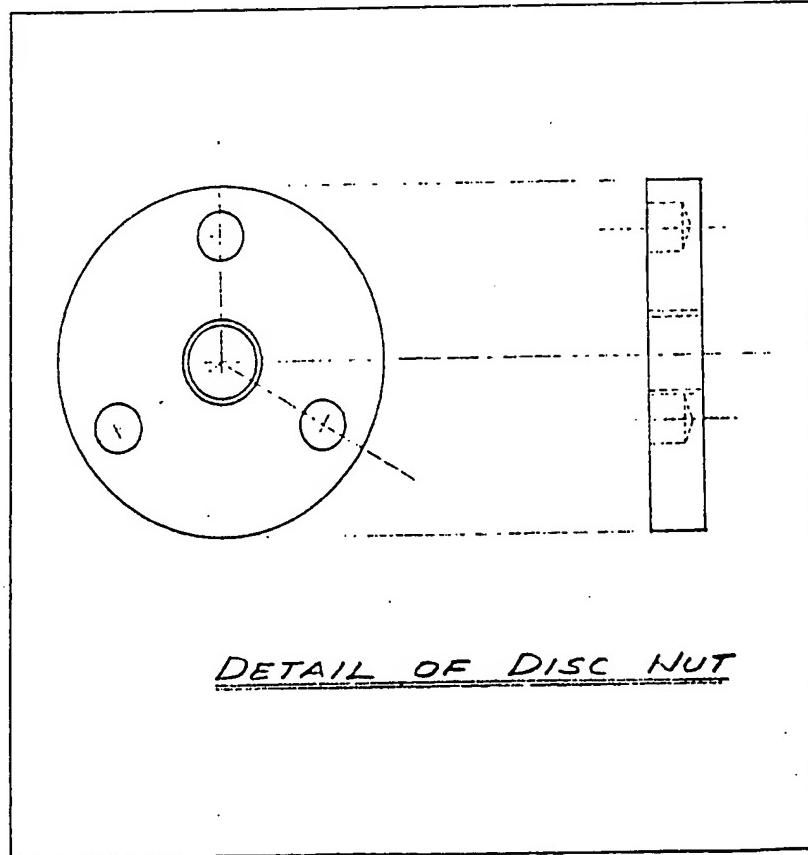
Derek Hugh Robinson,
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(54) Disc nut and disc-headed bolt

(57) A nut or bolt head is formed as a disc which is provided in one face with two, three or four blind or through holes or depressions or slots, for engagement by a suitable tool. The nut may be applied to a conventional threaded rod or bolt, or to a disc-headed bolt, in order to secure one timber member to another or to secure a timber member to a metal one. The disc nut or disc-headed bolt

may replace the conventional nut or bolt whilst eliminating the need for any washer.

The disc nut and disc-headed bolt can significantly enhance the appearance of structural timber joint assemblies particularly when recessed partially below or flush with the timber surface. In the latter application it also has significant advantages as a deterrent to vandals in locations which are vulnerable to their attentions.



GB 2 082 709 A

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PATENT APPLICATION

2082709

PROJECT

DISC NUT & BOLT FOR USE
IN TIMBER STRUCTURES

Page No.

Revision

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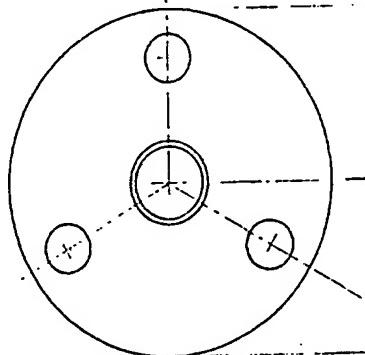
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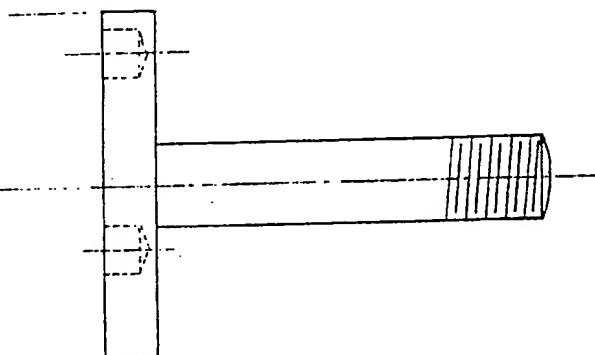
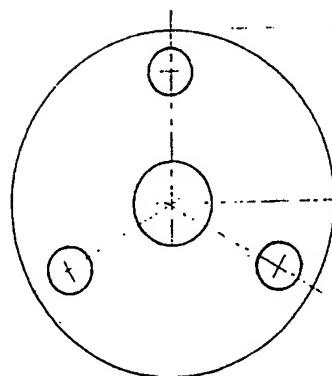
PART

BY D. H. R CKD



DISC NUT MAY BE USED
WITH DISC BOLT BELOW
OR WITH THREADED END.

DETAIL OF DISC NUT



DETAIL OF DISC BOLT

SPECIFICATION**Disc nut & disc bolt for use in connecting timber structures.**

The disc nut is a circular disc of metal with a 5 concentric threaded hole. In its face are three stopped or through circular holes disposed equally around the circumference on a common radius and so arranged that a specially made tool can be engaged with them for purposes of applying 10 torque in the plane of the disc. Alternatively two holes, four holes or other suitable depressions or slots may be formed in the face for the same purpose.

The disc nut may be used in conjunction with a 15 threaded rod, an ordinary bolt or with a disc bolt having a head of similar dimension and form to the disc nut.

The disc nut and the disc bolt are for use 20 exclusively in connecting structural timber components. They may be used alone or in conjunction with timber connectors of the toothed plate, split ring, shear plate or other pattern.

The disc nut replaces the ordinary hexagon or square nut and washer and requires no washer. It 25 may be applied on the surface of the timber component to project above it, or be partially or fully recessed below the timber surface to enhance the appearance of the assembly whilst retaining its function in tightening and holding the 30 joint together.

The disc bolt is used in similar manner.

The finish of the disc nut and the disc bolt may 35 be self coloured as the parent metal, rough machined, polished, painted, or plated according to the appearance required and the environmental conditions likely to obtain in service.

CLAIMS

1. The Disc Nut is a circular disc of steel with a concentric threaded hole having in addition on one 40 of its faces three round stopped or through holes disposed equally around and near to the periphery on a common radius concentric with the central threaded hole and so arranged that torque can be applied to the disc in its place by a suitable tool.

45 The Disc Nut is used in conjunction with a corresponding appropriately threaded round rod, ordinary bolt or Disc Bolt having a head of similar dimension and form to the Disc Nut the combination being used alone or in conjunction 50 with timber connectors to join one timber member to another or to connect a timber member to a metal member. The Disc Nut is used in surface contact with and for the purpose of connecting timber members. The Disc Bolt is used in a similar 55 context.

2. As claimed in claim 1 but with 2, 4 or more

holes in the face of the Disc Nut.

3. As claimed in any preceding claim but with notches or indentations on the perimeter of the 60 Disc Nut or without holes in face.

4. As claimed in any preceding claim but with chamfered, radiused, bevelled or milled perimeter edge.

5. As claimed in any preceding claim but 65 protected against corrosion by an application of a different metallic coating.

6. As claimed in any preceding claim but protected against corrosion by an application of paint in one or more coats.

7. As claimed in any preceding claim but made 70 of non-ferrous metal or plastic or a combination of metal and plastic materials.

8. As claimed in claims 1, 2, 3, 4, 5 and 7 but with polished finish.

75 New claims or amendments to claims filed on 8.7.81.

Superseded claims 1—8.

New or amended claims:—

1. The Disc Nut is a circular disc of steel with a 80 concentric threaded hole having in addition on one of its faces three round stopped or through holes disposed equally around and near to the periphery on a common radius concentric with the central threaded hole and so arranged that torque can be

85 applied to the disc in its plane by a suitable tool. The Disc Nut is used in conjunction with either a conventional threaded round rod, or ordinary bolt the combination being used alone or in conjunction with timber connectors to join one

90 timber member to another or to connect a timber member to a metal member. The Disc Nut is used in surface contact with and for the purpose of connecting timber members.

2. As claimed in claim 1 but with 2, 4 or more 95 holes in the face of the Disc Nut.

3. As claimed in any preceding claim but with notches or indentations on the perimeter of the Disc Nut or without holes in face.

4. As claimed in any preceding claim but 100 chamfered, radiused, bevelled or milled perimeter edge.

5. As claimed in any preceding claim but protected against corrosion by an application of a different metallic coating.

105 6. As claimed in any preceding claim but protected against corrosion by an application of paint in one or more coats.

7. As claimed in any preceding claim but made 110 of non-ferrous metal or a combination of metal and plastic materials.

8. As claimed in claims 1, 2, 3, 4, 5 and 7 but with polished finish.